

PURCHASE DESCRIPTION

MULTIMETER, DIGITAL

4245
TAMCN H7030

- 1.0 GENERAL This procurement requires a portable, hand-held multimeter.
- 2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-PRF-28800F class 3 for Navy shipboard, submarine and shore applications.
- 3.0 OPERATIONAL REQUIREMENTS The equipment shall be provided with autoranging capabilities and a memory function which captures and holds a reading for display. The equipment shall be capable of measurements within the minimum ranges and specifications following.
 - 3.1 DC Voltage
 - 3.1.1 Range: 5 mV to 1 kV
 - 3.1.2 Accuracy: $\pm(0.5\%$ of reading + 5 counts)
 - 3.2 AC Voltage The meter shall be average responding and RMS indicating
 - 3.2.1 Range: 100 mV to 750 V
 - 3.2.2 Frequency range: 45 Hz to 500 Hz: 100 mV to 5 V; 500 Hz to 1 kHz: 5 V to 750 V
 - 3.2.3 Accuracy: $\pm(2\%$ of reading + 5 counts)
 - 3.2.4 Input RC: 10 M Ω or greater shunted by 100 pF or less.
 - 3.3 DC Current
 - 3.3.1 Range: 10 mA to 10 A
 - 3.3.2 Accuracy: $\pm(2\%$ of reading + 3 counts)
 - 3.4 AC Current
 - 3.4.1 Range: 10 mA to 10 A from 45 Hz to 1 kHz
 - 3.4.2 Accuracy: $\pm(3\%$ of reading + 2 counts)
 - 3.5 Resistance
 - 3.5.1 Range: 0.1 Ω to 20 M Ω
 - 3.5.2 Accuracy: $\pm(2\%$ of reading + 1 count)
 - 3.6 Overload protection
 - 3.6.1 DC volt: 500 VDC or AC on lowest range, 1,000 VDC or 750 VAC on all other ranges
 - 3.6.2 AC volt: 1,000 VDC or 750 Vrms
 - 3.6.3 Current: 200% of full scale value on mA ranges, 15 A on 10 A range
 - 3.6.4 Resistance: 500 VDC or AC
 - 3.7 Display A 3-1/2 digit LED display shall be provided. A bar graph or analog indicator shall be provided for peak or null interpretation.- 4.0 GENERAL REQUIREMENTS
 - 4.1 Power:

- 4.1.1 Internal DC battery: Internal power source requirements according to MIL-PRF-28800F are invoked. The batteries shall be a commercially available type and have a life span of at least twelve months.
- 4.2 Weight 0.45 kg max (1 lb)
- 4.3 Size 4.3 cm H, 9 cm W, 15.8 cm L, nominal
- 4.4 Accessories The equipment shall be provided with safety-designed test leads in accordance with MIL-PRF-28800F.
- 4.5 Transit case The equipment shall be provided with a protective soft transit case. The soft transit case shall have provisions for stowage of the equipment, the accessories, and at least the Operator's manual.
- 4.6 Calibration Interval: The calibration interval shall be 24 months minimum. At the end of this interval, a minimum of 85 percent of the unit shall remain in tolerance.
- 4.7 Technical manual: Technical manuals shall be conformed with standard MIL-PRF-28800F. A Use and Installation manual (Operator's Manual) shall be provided separately. The technical manual shall be provided in both printed and electronic formats. The printed format shall be otherwise normally provided. The electronic format shall consist of the installation programs for the latest version of Adobe Acrobat for all computer platforms for which Acrobat is available and the technical manual in an electronic form that is readable through use of the Adobe Acrobat application.
- 4.8 Battery restrictions: Per MIL-PRF-28800F, lithium and mercury batteries are prohibited without prior authorization. A request for approval for the use of lithium or mercury batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.